

**MOST COMMON SOURCES OF SPECIFIC NUTRIENTS IN ADOLESCENTS  
BY CURRENT WEIGHT STATUS**

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## **MOST COMMON SOURCES OF SPECIFIC NUTRIENTS IN ADOLESCENTS BY CURRENT WEIGHT STATUS**

### **Statement of the Problem**

Childhood overweight has become a serious public health concern. Overweight in children is defined as a sex-specific body mass index (BMI) for age at or above the 95<sup>th</sup> percentile on the CDC growth charts. At risk for overweight is defined at in the 85<sup>th</sup> percentile for BMI. The prevalence of childhood overweight has increased markedly in the last 30 years (6). Data from two NHANES surveys (1976–1980 and 2003–2004) show that the for children aged 2–5 years, prevalence increased from 5.0% to 13.9%; for those aged 6–11 years, prevalence increased from 6.5% to 18.8%; and for those aged 12–19 years, prevalence increased from 5.0% to 17.4% (2). *Healthy People 2010* identified overweight and obesity as 1 of 10 leading health indicators and called for a reduction in the proportion of children and adolescents aged 6 to 19 years from 11% to 5% but so far the United States has made little progress toward that goal (2). The current trend is the rise of childhood obesity, adverse to the *Healthy People 2010* goal of decreasing it.

The prevalence of overweight was 15.5% among 12-19 year old, 15.3% among 6-11 year olds and 10.4% among 2-5 year olds in 1999-2000. This was compared with 10.5%, 11.3%, and 7.2% respectively in NHANES III (3). Between 1999-2000 and 1999-2002 there were no significant changes among children 6-19 in the at risk for and overweight categories but that was no indication that the prevalence of obesity was decreasing in children (4). In all actuality the obesity prevalence was on the rise. In 1999-2004 the prevalence of overweight in female children rose from 13.8% in 1999-2000 to 16% in 2003-2004 and in male children the prevalence of overweight increased from

14.0% to 18.2% (5). Among races, black children experienced much larger secular increases in BMI than did white children (6).

The large increase in obesity over the past several decades magnifies the influence of environmental over genetic factors. Obesity at the individual level in the end results from an imbalance between energy intake and energy expenditure (1). Due to this imbalance, many dietary factors have been implicated in this problem. It is true that energy intake and portion sizes of food both at home and away have increased by a large degree from 1977 to 1998 (1). It was also found in a recent study that average energy intake increase with age and energy intake increases most between the ages of 4-6 and in children that were overweight at 8 years (12).

Some researchers found differing evidence as to the role of dietary intake and childhood overweight. In a study of 77 preschool children, Atkin and Davies (7) found that there was no relationship among dietary intakes of total energy, fat, carbohydrate, or protein and percentage of body fat in children. Research done by Rodriguez and Moreno agreed with the Atkin and Davies (7) research. In Davies further study of the relationship between diet composition and body mass index (BMI) he found similar results to his earlier research, that diet composition does not affect body size in 1.5-4.5 year olds (9). He also did not find any significant association between percent energy intakes from any group and BMI (9). Research done by Rolland-Cachera and Bellisle states that though many studies have failed to find an association between individual energy intakes and obesity, the prevalence of overweight is higher in populations with high energy intakes (11). These researchers suggest that socially determined factors such as a high energy diets act in a permissive way in the development of obesity (11).

Different studies also made cases for different nutrients and food groups implicated in this problem. In a study by Newby et al (8) they tested the considered intakes of nutrients (total fat and fiber) and predefined food groups (breads and grains, “fat foods,” fruits, and vegetables) used in the North Dakota WIC program (8). They found that there were no significant relations among total intakes and weight change with fat, fiber, fruits of vegetables (8). They also found that North Dakota WIC fat foods (some examples are ice cream, mayonnaise, potato chips, cookies, cakes, and pies) but not dietary fat were associated with weight gain; and breads and grains but not dietary fiber, were associated with weight loss (8).

Results from the Belgian Luxembourg Child Study IV reported that total energy intakes showed no significant correlation with anthropometric factors but in boys that total fat and saturated fat showed at positive correlation with BMI and skinfold thickness and carbohydrates a negative one (15). They also found that at positive energy balance was contributing to obesity due mainly to a low energy output (15). Furthermore, Kant (16) reported a significant relationship between low nutrient dense foods and childhood obesity. High nutrient dense food reporting was related to higher energy intakes but lower amounts of the five major food groups (dairy, fruit, grain, meat, and vegetable) and most nutrients.

Many studies further support the role of certain foods and food groups that are also involved in this issue. Of all of the macronutrients, fat has received the greatest attention in its relationship to obesity. There is continued controversy of the role of dietary fat in the obesity epidemic. Among young girls, a high-fat diet was related to poorer diet quality, including less fiber and vitamins, as well as fewer fruits and more

sweets (1). The question remains though as to whether dietary fat is a major determinant of body fat. According to Willett (17), the answer is no that it is not the primary cause of excess body fat and thus, reductions in fat will not be the solution. Alfieri et al (18) has a different point of view on this and these researchers think that a high fat diet may promote obesity. The jury is out on the question of dietary fat and childhood overweight. As for carbohydrates, Newby (1) also reported that percent energy from carbohydrates also increased, due to the increased consumption of refined grain products, but intakes of total fiber have decreased. As for a link between dietary carbohydrates and childhood overweight, findings are inconclusive as to there being one. Protein findings follow in the same line as carbohydrates, there is insufficient data to support an association between dietary protein and childhood overweight.

There is limited research on the question of milk, dairy fat, dietary calcium and weight gain. One study found that drinking large amounts of milk (more than 3 servings a day) gained more in BMI than those who drank smaller amounts (20). To assess the role of energy-dense snack food intakes on weight and body fatness, Philips et al (13) studied nonobese premenarchal 8-12 year olds. They found that energy-dense snack food consumption doesn't influence weight status or fatness change. Also, a reduced-glycemic load diet appears to be a promising alternative to a conventional diet in obese adolescents (19).

Fast food also comes to mind when laying blame for the overweight epidemic in children. Newby (1) reported "portions of salty snacks increased by 93 kcal (from 1.0 to 1.6 oz), soft drinks by 49 kcal (13.1 to 19.9 fl oz), hamburgers by 97 kcal (5.7 to 7.0 oz), and french fries by 68 kcal (3.1 to 3.6 oz), all of which as commonly consumed by

children.” Ebbeling et al (14) also found that when given at “extra large” fast food meal and instructed to eat as much or as little as desired, adolescents over consumed regardless of weight (though those overweight did consume more). The difference was that overweight adolescents were less likely to compensate by adjusting their energy intake than the lean participants.

Beverage intake has also been implicated and many studies have been done to this end. In a study done by O’Connor et al (21) on beverage intake among preschool children and its effect on weight status, they found that high beverage consumption is associated with high total beverage intake but not with BMI. In another study done by Berkey et al (25) on sugar added beverages and adolescent weight change, they found that “consumption of sugar added beverages may contribute to weight change among adolescents, possibly due to their contribution to total energy intake, because adjustments for calories greatly attenuated the estimated associations.” So they found that those who drank more sugar added beverages experienced more weight gain. Many studies have also been done on fruit juice consumption and found that increased consumption of fruit juice is associated with short stature and obesity among children (21, 22, and 24). Another study supported the Institute of Medicine’s recommendations to reduce fruit juice intake as a strategy for overweight prevention (24) while another found no association between fruit juice consumption and obesity and short stature in preschool children (23). Overall there is a link between sugar sweetened beverages and obesity, partially due to the incomplete compensation of calories from beverages (1).

Though there have been many studies on dietary factors and childhood overweight, many studies have suggested that to find relations between dietary factors

and childhood obesity, perhaps eating patterns or different types of foods should be considered. Researchers Rodriguez and Moreno (10) reported that “to find relations between dietary factors and childhood obesity, perhaps eating patterns or different types of foods should be considered.”

## **Materials and Methods**

### **Purpose and Objectives of the Study**

The purpose of this study was to describe food intake patterns in one age group (12-18 year olds) of a nationally representative sample of children and examine the leading food sources of fat, saturated fat, discretionary fat, and added sugar and their impact on childhood obesity.

The objective was:

- To determine leading sources of fat, saturated fat, discretionary fat, and added sugar in children who are normal weight, at risk, and overweight according to weight status classifications based on BMI for age percentiles.

### **NHANES Overview**

I used data from the National Health and Nutrition Examination Surveys (NHANES) part of the Centers for Disease Control and Prevention (CDC) to identify foods that contribute to childhood obesity in US children. The National Health and Nutrition Examination Surveys (NHANES) were conducted periodically between 1971 and 1994. The most recent NHANES, which began in 1999, has become a continuous national nutrition monitoring survey. It was designed to assess the health and nutritional status of adults and children in the US. Approximately 7,000 individuals of all ages are interviewed in their homes each year. The sample was selected to represent the US

population and a special emphasis is placed on adolescent health and the health of older Americans. NHANES 1999-2002 included over-sampling of low-income persons, adolescents, the elderly, pregnant women, African Americans and Mexican Americans.

NHANES has two components, the interview and the examination, both parts required informed consent. Trained in-home interviewers visited the homes of potential participants, recruited them, and administered screening questionnaires. The questionnaires included demographic, socioeconomic, dietary, and health related questions. The health examination part included a scheduled visit to the mobile examination center (MEC). Each MEC consisted of four large inter-connected trailer units open five days a week with two examination sessions conducted daily. The MEC included extensive physical, laboratory, and question exams which took three hours to complete. Pertinent to this study, during the MEC visit dietary intakes and anthropometric measurements were assessed to obtain nutritional information as it relates to obesity.

## **Subjects**

NHANES 1999-2002 included 21,004 individuals over the age of 2 months. A nationally representative sample of children 12-18 years of age, with dietary intake data from the 1999-2002 NHANES was used for this analysis.

## **Dietary Intakes Assessment**

During the visit to the mobile examination center, the dietary interview component was administered to all examinees that were eligible. The dietary intake data were used to estimate total intake of energy, nutrients, and non-nutrient food components from foods and beverages that were consumed 24-hours prior to the interview. Proxy



respondents were permitted for survey participants less than six years of age, and assisted interviews were completed with survey participants 6-11 years of age. Trained, college-educated dietary interviewers, who were also bilingual, collected all dietary data.

The multiple pass 24-hour dietary interview format was used to collect detailed information about all foods and beverages. There were four interview passes which included a quick list in which respondents were asked to recall all foods and beverages consumed in a 24-hours period the day before the interview, time and place where each food was eaten along with the occasion, details about each food eaten including the amount consumed, and a final review in which foods were reviewed with the respondent in chronological order. Any extra foods remembered during this process were added to the record as well as modifications for reported foods.

The files were then transferred electronically to the University of Texas Food Intake Analysis System (FIAS) for coding. Then FIAS version 3.99 and the US Department of Agriculture (USDA) Food and Nutrient Database for Dietary Studies (FNDDS) were used to code and report the dietary intake data for NHANES 1999-2002. The FNDDS is a database which includes nutrient values and MyPyramid equivalents for reference 100 gram portions. Nutrients and MyPyramid data are provided per the amounts provided by each food as well as cumulative totals for each day. Nutrient intakes in their respective files do not include dietary supplement information.

### **Anthropometric Data**

Body measurements were recorded for all examinees by a trained examiner in the MEC. For the purposes of this study, data that was collected on weight and standing height was particularly important so BMI could be calculated for BMI percentiles. Waist

circumference was also measured. If an examinee had to leave the MEC early and was unable to complete the Body Measurement Component, weight and standing height were measured. To minimize data errors, weight and height were collected electronically from the measuring instruments. Data was evaluated by comparisons to age- and gender-specific references to identify outliers and data recording errors.

### **Data Preparation**

Data was available from NCHS. The public use files from NCHS were downloaded from the website and entered into SPSS for preparation and analysis. Sex, age, height, and weight data for each child was provided in NHANES. Data was exported into Epi Info (version 3.2.2, CDC, Atlanta, GA) to obtain body mass index (BMI)-for-age percentiles based on the 2000 CDC growth charts. BMI-for-age percentiles were used to classify children into levels of overweight based on current Center for Disease Control (CDC) guidelines as shown in the table below (2):

<b>Classification</b>	<b>BMI Percentile</b>
Normal Weight (NW)	5 <sup>th</sup> %-85 <sup>th</sup> %
At Risk for Overweight (AR)	85 <sup>th</sup> %-95 <sup>th</sup> %
Overweight (OW)	$\geq 95^{\text{th}}\%$

### **Data Analysis**

To determine the differences in the food sources of nutrients by children across varying weight classification, the contribution to total intakes by gender and weight category will be determined using the following formula:

$$(\text{Sum of nutrient per food}) / (\text{Total nutrient consumed for all foods})$$

The nutrients of interest include total fat, discretionary fat, saturated fat and added sugar. The sums of nutrients from each food will be sorted descending to identify the most common sources of each nutrient within each weight classification, stratified by gender. SPSS Complex Samples (version 15.0, Chicago, IL) was used to collect analysis of the NHANES sample. This software allows for the correction for the over sampling of hard-to-reach populations, which represents a nationally-representative sample. When increasing the sample to a national scale, SPSS Complex Samples is also essential to provide appropriate standard errors for statistical analysis.

## **Results**

### Categories

- Dairy
  - Fluid milk, cheese, and ice cream
- Processed/Fatty Meat
  - Ground beef, chicken patty and nuggets, beef steak, pork sausage and spareribs, frankfurter
- Pizza
  - Thick and thin crusts, cheese, vegetable, and meat pizzas
- Condiments/Table Fats
  - Creamy, Caesar, and French dressings, regular mayonnaise, butter, tartar sauce
- Beverages Soft drinks, lemonade, fruit drinks, teas

In this sample of 12-18 year old males and females, several overall trends of fat and sugar intakes were evident. Adolescents in the NW group had a greater variety of sources of saturated fat, discretionary fat, total fat and added sugars than kids in the AR and OW groups. Top sources for all weight classifications included dairy, processed/fatty meats, salty snacks/chips, pizza, condiments and table fats and French

fries. The leading source of total and discretionary fat for males and females is French fries, while whole milk contributed the most common to saturated fat intakes. Regular Soft drinks were the top source of added sugars by far. Females had more sources of total and saturated fat than males, but equal leading sources of discretionary fat.

When examining the leading sources of total fat, several trends were noted by weight status. French fries topped all of the lists for the greatest contributor to total fat intakes, as OW females (4.30%) had the highest contribution of all groups. No gender differences were seen in the contribution of dairy to total fat intakes; normal weight kids obtained more total fat from dairy. NW males consumed the most dairy of all categories consuming 8.1% of total fat from dairy.

AR males received the greatest contribution of total fat intakes from processed meats, which had a greater contribution than was found in the NW and OW categories. AR males (7.8%) had quadruple the contribution of total fat from processed meats than NW males (2.8%). As for the females in the processed/fatty meat category the OW females contributed the most with (7.5%). As for salty snacks and chips they contributed in a trend similar to the one for processed fatty meats with the highest contributor for males being in the AR category (6.30%) and for females in the OW category (6.00%).

Pizza contributed the most to total fat intake in OW males (7.30%) versus in NW (4.70%) and AR (3.90%). For pizza in females there was an odd trend in that the highest contributor was in the NW category (4.90%) with the OW category a close second (4.40%). AR males had a smaller contribution from pizza, while OW males had twice the contribution (7.30%) than the AR (3.90%) males.

The saturated fat category shared many similar trends with the discretionary fat category. Males for saturated fat followed the same trend in two categories with AR contribution the most to saturated fat in processed/fatty meat (4.50%) and salty snacks/chips (4.50%). Males for discretionary fat followed this same trend in the same two categories with AR contribution the most to discretionary fat in processed/fatty meat (4.80%) and salty snacks/chips (7.30%) as well.

Similarities can also be seen in the females as well. For saturated fat the OW category contributed the most to saturated fat in three categories: processed/fatty meat (7.00%), salty snacks/chips (3.30%), and French fries (3.10%). Females for discretionary fat followed this same trend in the same three categories with OW contribution the most to discretionary fat in processed/fatty meat (6.00%), salty snacks/chips (6.70%) and French fries (5.40%).

Pizza was an odd category, but was also similar for discretionary and saturated fat. In males pizza contributed the most to discretionary fat in the OW category (8.30%) versus NW (5.40%) and AR (5.60%). In females for discretionary fat, pizza contributed the most in NW (5.60%) versus AR (2.60%) and OW (5.10%). For pizza for saturated fat, it followed the same trends as discretionary fat with OW males contributing the most (8.00%) versus NW (5.20%) and AR (5.40%). For pizza for saturated fat, females also followed the same trends as for discretionary fat with NW contributing the most (5.70%) versus AR (2.70%) and OW (5.00%).

Different trends were also found in the saturated and discretionary fat groups. As for the saturated fat firstly the AR males had most sources (22) versus NW (15) and OW (14). AR and OW females both tied for the most sources (19) compared to NW (15).

White whole milk was at the top of all saturated fat lists (males and female) except 2% milk was at the top of the male OW (5.1% versus 4.7%). Dairy trends for the Saturated fat group were interesting with dairy contributing 20% one-fifth of the saturated fat intake for all weight categories for males and females. As for condiments, for males no weight category contributed anything to saturated fat and for females condiments were of minimal impact (~1%).

Discretionary Fat had some interesting trends of its own. AR males (23) and females (22) both had the most sources that contributed to discretionary fat versus males NW (14) and OW (20) and females NW (17) and OW (20). Males and females both followed similar trends in this case. French fries were the top source for all categories, males and females, except males OW of which pizza with meat thick crust was the top (3.40% versus 3.30%). In the dairy category, dairy contributed 10% to overall discretionary fat intake. AR males consumed the most dairy (12.10%) versus NW (11.80%) and OW (11.10%). NW females got the most discretionary fat from dairy (9.00%) versus AR (8.00%) and OW (8.90%).

In the category of added sugars; beverages from the leading sources contributed >50% to added sugars in all categories. For males beverages contributed 11 of the 13 sources for the NW category, 13 of 18 in the AR category, and 12 of 17 in the OW category. For females beverages contributed 9 of 14 sources in NW category, 12 of 17 in the AR, 10 of 11 in the OW category. Other sources such as candy, cookies and cake contributed moderately to leading sources of added sugar.

## **Discussion**

Many studies have indicated a link between dietary intakes and risk for developing obesity in children and adolescents; however, data are limited on differences in the actual foods contributing to those intake differences. Moreno et al (10), stated “to find relations between dietary factors and childhood overweight, instead of simple food composition and energy intakes, perhaps eating patterns or different types of foods should be considered.” Some general differences in food selection patterns were seen in males for saturated and discretionary fat, in which AR adolescents has the greatest contribution from processed/fatty meat and salty snacks/chips. Saturated and discretionary fat trends for females were that the OW category contributed the most in three categories: processed/fatty meat, salty snacks/chips, and French fries.

Because of obesity and dietary intakes habits are significantly related to chronic disease, it is important to consider current nutritional recommendations to demonstrate how well these recommendations are being met and what changes can be made for the future. The American Heart Association (AHA) now recommends the Therapeutic Lifestyle Changes (TLC) diet for High Cholesterol created by the National Cholesterol Education program (NCEP, 26). The TLC Diet is a low saturated fat, low cholesterol diet that helps to reduce blood cholesterol levels that results in a decreased risk of developing heart disease, future heart attacks, and other heart disease complications. These guidelines indicate that total fat intakes should be no more than 25-35% of the day's total calories (26). The TLC diet also recommends no more than 7% of the day's total calories from saturated fat (26).

The AHA guidelines for meat selections are to choose fish, shellfish, poultry without the skin and trimmed lean meats. Daily intakes should be no more than 6 ounces, cooked, enjoy at least 2 servings of baked or grilled fish each week, choose low-sodium, low-fat seasonings and to select meat substitutes such as dried beans, peas, lentils or tofu (soybean curd) in entrees, salads or soups (28). Adhering to these guidelines can increase overall health and lessen heart disease risk according to the AHA (28).

In my research, I found some interesting trends of the AR and OW kids consuming more from the high fat processed food sources than the NW kids. One example is in the processed/fatty meat category, the AR males consumed more than the NW and OW categories (7.8%) and it contributed the most to their total fat intake, which was four-fold higher than the contribution to total fat in NW males (2.80%). As for the females in the processed/fatty meat category the OW females contributed the most with (7.5%). Processed fatty meats are not compatible with AHA guidelines. By choosing processed fatty meats over lean meats these AR and OW kids are increasing their risk for CVD. Dietitians can make these recommendations in their counseling sessions with this age category of clients.

The American Cancer Society (ACS) also agrees with the AHA's recommendations and states that "diets high in fat tend to be high in calories and may contribute to obesity, which in turn is linked with an increased risk of several types of cancer" (27). There is evidence that certain types of fats, such as saturated fats, may increase cancer risk. The ACS also states that "strong evidence links a healthy, low-fat diet with lowering the risk of cancer, particularly some gastrointestinal, respiratory and reproductive system cancers" (27).



Unfortunately, despite the warnings, recent studies show that Americans have actually increased their caloric intake and the use of high-fat convenience foods (14,16). The results from my research indicated a considerable contribution of fat intakes from highly processed foods. This can be seen in my top sources of total fat, discretionary fat, and saturated fat. Top sources for all weight classifications and categories included dairy, processed/fatty meats, salty snacks/chips, pizza, condiments and table fats and French fries. Thus Americans are at a higher risk for heart disease, diabetes, stroke, metabolic disease, and obesity related cancers associated with higher fat intakes and increased weight gain.

One of the predominant sources of fat was dairy foods. The American Dairy Association (ADA) recommends 3-A-Day of Dairy, Yogurt and Milk (29). Consuming 3 servings per day of milk and milk products can reduce the risk of developing bone disease and fractures, problems that are increasing in the US. Clients also do not want to overconsume dairy because researchers Berkey et al (20) found in their study that children drinking large amounts of milk (more than 3 servings a day) gained more in BMI than those who drank smaller amounts. The American Academy of Pediatrics (AAP, 31) indicates that from the 2005 Dietary Guidelines for Americans “dairy is recognized as playing an important role in improving bone health, and some studies have demonstrated that people who consume more dairy products have better overall diets.”

The AHA recommends fat-free, and 1% fat milk, which are lower in fat, saturated fat, cholesterol and calories than 2% and whole milk (30). Finding from my research on dairy food consumption indicate that there is a consistent trend for males and females with normal weight kids consuming the greatest amount of saturated fat from dairy

products (8.1%) and the overweight kids consuming the least. White whole milk was at the top of all saturated fat lists (males and female) except 2% milk was at the top of the male OW. Dairy contributed one-fifth of the saturated fat intake for adolescents in all weight categories. As for discretionary fat, dairy contributed 10% to overall discretionary fat intake with whole milk topping the list. Current nutrition education sessions with this clientele should encourage adolescents to consume more dairy products to ensure they get their three servings a day. Fat-free, ½% fat and 1% fat milk options should be promoted over 2% and whole milk; they are lower in fat, saturated fat, cholesterol and calories.

Focusing on added sugar intakes, according to Berkey et al (25), the consumption of sugar added beverages may contribute to weight gain among adolescents due to its contribution to total energy intake. In my research regular soft drinks were found to be the top source of added sugars; beverages contributed >50% to added sugars in all weight categories. For males, beverages comprised 11 of the 13 sources for the NW category, 13 of 18 in the AR category and 12 of 17 in OW adolescents. For females beverages contributed 9 of 14 sources in NW category, 12 of 17 in the AR, 10 of 11 in the OW category. The AAP recommends little to no sugar-sweetened beverages in a daily diet to help lessen the incidence of childhood obesity (32). Dietitians and Healthcare professionals should recommend based on this research decreasing sugar sweetened beverage consumption to help lessen the added sugars in this population of children's diets.

Individuals who consumed the greatest variety of foods from all groups have the most adequate nutritional intake (10). In my research I found this to be true that in all of

the areas saturated fat, discretionary fat, total fat and added sugars the kids in the NW group ate more of a variety of foods and from more sources than adolescents in the AR and OW groups.

These findings provide a missing component of food selection habits that help explain the differences in mean nutrient intakes commonly reported. Now that major sources of total fat, saturated fat, discretionary fat and added sugars have been described and trends by weight and gender have been addressed, nutrition counseling sessions can be supplemented using this research. Key recommendations based on this study are decreasing consumption of the high fat and processed foods that are the top sources to reflect current recommendations. Hopefully this research can be one small step towards fighting the childhood obesity epidemic. Now that these foods have been located by evidence based research, solutions can be found. Some of these solutions could be: more directed nutrition education campaigns, legislation to regulate marketing of fast food to kids, the elimination of fast food from schools, and focused nutrition education sessions by dietitians using this research. Raising awareness is a key to lessening the obesity epidemic in the US and I hope that my research helped to bring some of these issues to the forefront.

Further research can be done to identify the pattern of how the food was consumed, in meals or snacks to see if there was a difference in the eating pattern by weight status. Also, further studies are needed with different age groups or focusing on specific trends in this data such as a trend toward high fat dairy consumption. [Moreover future research](#) can be done to study odd trends in my data such as the normal weight kids

consuming the highest amount of total fat, discretionary fat, saturated fat, and added sugars.

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Gender	Leading Sources of Added Sugars	Weight Categories					
		Normal Weight		At-risk		Overweight	
		%	Cum %	%	Cum %	%	Cum %
Males	Soft drink, cola-type	16.0%	16.0%	16.1%	16.1%	16.0%	16.0%
	Soft drink, fruit-flavored, caffeine free	8.7%	24.8%	8.6%	24.7%	13.6%	29.6%
	Soft drink, pepper-type (incl dr. Pepper, mr. Pibb)	8.5%	33.3%	6.8%	31.5%	7.0%	36.6%
	Soft drink, fruit-flavored, w/ caffeine	5.9%	39.2%	7.2%	38.7%	6.4%	43.0%
	Root beer	2.0%	41.2%	1.7%	40.5%	1.8%	44.8%
	Tea, leaf, presweetened w/ sugar	1.9%	43.2%	<1%	40.5%	<1%	44.8%
	Ice cream, regular, not chocolate	1.6%	44.8%	1.2%	41.7%	<1%	44.8%
	Fruit-flavored thirst quencher beverage	1.6%	46.3%	2.4%	44.1%	1.5%	46.3%
	Maple & corn &/or cane pancake syrup blends	1.3%	47.6%	<1%	44.1%	<1%	46.3%
	Fruit-flavored drink, from sweetened powdr,fortified w/ vit c	1.3%	48.9%	1.9%	45.9%	3.6%	49.9%
	Fruit drink (include fruit punch & fruit ade)	1.3%	50.2%	1.3%	47.2%	2.1%	52.0%
	Soft drink, cola-type, decaffeinated	1.2%	51.4%	1.1%	48.4%	1.2%	53.2%
	Lemonade	1.2%	52.5%	1.7%	50.1%	<1%	53.2%
	Snow cone, slurps	<1%	52.5%	4.8%	54.9%	2.2%	55.3%
	Soft drink, pepper-type, decaffeinated	<1%	52.5%	2.2%	57.1%	<1%	55.3%
	Cola w/ fruit or vanilla flavor	<1%	52.5%	1.8%	58.9%	1.1%	56.4%
	Cookie, chocolate chip	<1%	52.5%	1.4%	60.3%	1.2%	57.6%
	Cake, white, w/ icing, homemade	<1%	52.5%	1.1%	61.4%	1.3%	58.9%
	Skittles candy	<1%	52.5%	1.1%	62.5%	<1%	58.9%
	Fruit punch/drink/ade w/ vit c added (incl hi-c)	<1%	52.5%	1.0%	63.5%	1.3%	60.3%
	Lemonade w/ vitamin c added	<1%	52.5%	<1%	63.5%	2.5%	62.7%
	Sugar, white, granulated or lump	<1%	52.5%	<1%	63.5%	1.5%	64.2%
	Tomato catsup	<1%	52.5%	<1%	63.5%	1.0%	65.3%

**Table 1: Leading Sources of Added Sugars by Weight Status**

Gender	Leading Sources of Added Sugars	Weight Categories					
		Normal Weight		At-risk		Overweight	
Females	Soft drink, cola-type	16.0%	16.0%	16.4%	16.4%	17.8%	17.8%
	Soft drink, fruit-flavored, caffeine free	7.1%	23.1%	8.7%	25.1%	9.7%	27.5%
	Soft drink, pepper-type (incl dr. Pepper, mr. Pibb)	4.8%	27.8%	5.3%	30.4%	6.4%	33.9%
	Soft drink, fruit-flavored, w/ caffeine	4.3%	32.1%	4.0%	34.4%	8.8%	42.7%
	Fruit drink (include fruit punch & fruit ade)	2.7%	34.8%	1.3%	35.6%	3.6%	46.3%
	Snow cone, slurps	2.6%	37.4%	2.5%	38.1%	<1%	46.3%
	Lemonade	2.4%	39.9%	3.1%	41.2%	<1%	46.3%
	Ice cream, regular, not chocolate	1.7%	41.6%	1.8%	43.0%	<1%	46.3%
	Hard candy	1.7%	43.3%	<1%	43.0%	1.7%	48.0%
	Root beer	1.6%	44.8%	3.0%	46.0%	3.1%	51.1%
	Fruit-flavored drink, from sweetened pwdr, fortified w/ vit c	1.5%	46.3%	1.5%	47.5%	1.4%	52.5%
	Gumdrops	1.4%	47.7%	<1%	47.5%	<1%	52.5%
	Cola w/ fruit or vanilla flavor	1.3%	49.0%	<1%	47.5%	<1%	52.5%
	Sugar, white, granulated or lump	1.2%	50.2%	<1%	47.5%	<1%	52.5%
	Lemonade-flav drink, from powder, w/ sugar & vit c	<1%	50.2%	2.2%	49.7%	<1%	52.5%
	Cake, choc, devil's food/fudge, w/icing, homemade	<1%	50.2%	1.8%	51.5%	<1%	52.5%
	Cake, carrot, ns as to icing	<1%	50.2%	1.6%	53.1%	<1%	52.5%
	Fruit-flavored thirst quencher beverage	<1%	50.2%	1.4%	54.5%	<1%	52.5%
	Tea, made from powdered instant, presweetened	<1%	50.2%	1.4%	55.9%	<1%	52.5%
	Froot loops cereal	<1%	50.2%	1.3%	57.2%	<1%	52.5%
	Soft drink, cola-type, decaffeinated	<1%	50.2%	1.3%	58.5%	<1%	52.5%
	Fruit punch/drink/ade w/ vit c added (incl hi-c)	<1%	50.2%	<1%	58.5%	2.6%	55.0%
	Soft drink, cola-type, w/ higher caffeine (incl jolt)	<1%	50.2%	<1%	58.5%	1.8%	56.9%
	Tea, leaf, presweetened w/ sugar	<1%	50.2%	<1%	58.5%	1.4%	58.2%

**Table 1: Leading Sources of Added Sugars by Weight Status (continued)**

Gender	Leading Sources of Discretionary Fat	Weight Categories					
		Normal Weight		At-risk		Overweight	
		%	Cum %	%	Cum %	%	Cum %
Males	White potato, french fries, from frozen, deep-fried	4.4%	4.4%	4.9%	4.9%	4.1%	4.1%
	Milk, cow's, fluid, whole	3.7%	8.1%	3.1%	8.0%	3.3%	7.4%
	Pizza w/ meat, thick crust	3.0%	11.1%	3.1%	11.1%	3.9%	11.3%
	Milk, cow's, fluid, 2% fat	2.8%	13.9%	2.7%	13.7%	3.2%	14.5%
	Pizza w/ meat, thin crust	2.4%	16.3%	1.1%	14.8%	2.6%	17.1%
	White potato, chips (incl flavored)	2.4%	18.7%	3.5%	18.3%	2.6%	19.6%
	Salty snacks, corn or cornmeal, tortilla chips	2.3%	21.0%	3.8%	22.1%	2.7%	22.4%
	Ice cream, regular, not chocolate	1.8%	22.9%	1.4%	23.5%	1.0%	23.4%
	Mayonnaise, regular	1.8%	24.6%	1.7%	25.2%	1.6%	24.9%
	Cheese, processed, american/cheddar type	1.3%	25.9%	1.7%	26.9%	2.5%	27.4%
	Ground beef, regular, cooked	1.2%	27.1%	2.0%	28.9%	1.4%	28.9%
	Creamy dressing, w/sour cream/buttermilk & oil	1.2%	28.3%	2.3%	31.2%	1.4%	30.2%
	Cheese, nfs	1.1%	29.4%	<1%	31.2%	<1%	30.2%
	Cheese, natural, cheddar or american type	1.1%	30.4%	1.1%	32.3%	1.1%	31.3%
	Bread stick, soft, prep w/ garlic & parmesan cheese	<1%	30.4%	<1%	32.3%	1.0%	32.3%
	Burrito w/ beef & beans (include burrito,nfs)	<1%	30.4%	1.1%	33.4%	<1%	32.3%
	Caesar dressing	<1%	30.4%	<1%	33.4%	1.0%	33.4%
	Cheese,cheddar/american type,ns natural or processed	<1%	30.4%	1.0%	34.4%	<1%	33.4%
	Chicken patty/fillet/tenders, breaded, cooked	<1%	30.4%	1.7%	36.1%	<1%	33.4%
	Cookie, chocolate chip	<1%	30.4%	1.7%	37.8%	1.6%	35.0%
	Eggs, whole, fried (incl scrambled, no milk added)	<1%	30.4%	<1%	37.8%	1.0%	36.0%
	Frankfurter or hot dog, beef	<1%	30.4%	1.1%	38.8%	<1%	36.0%
	French dressing	<1%	30.4%	1.4%	40.2%	<1%	36.0%
	Macaroni/noodles w/ cheese, made from dry mix	<1%	30.4%	1.0%	41.2%	<1%	36.0%
	Milk, chocolate, nfs	<1%	30.4%	1.1%	42.3%	<1%	36.0%
	Peanut butter	<1%	30.4%	<1%	42.3%	1.0%	37.0%
	Pizza w/ meat & vegetables, thick crust	<1%	30.4%	<1%	42.3%	1.8%	38.8%
	Pizza, cheese, thin crust	<1%	30.4%	1.4%	43.7%	<1%	38.8%
	Turnover, meat & cheese, tomato sauce	<1%	30.4%	1.1%	44.8%	1.1%	39.9%

**Table 2: Leading Sources of Discretionary Fat by Weight Status**

Gender	Leading Sources of Discretionary Fat	Weight Categories				
		Normal Weight		At-risk		Overweight
Female	White potato, french fries, from frozen, deep-fried	3.7%	3.7%	4.0%	4.0%	5.4%
	Creamy dressing, w/sour cream/buttermilk & oil	3.1%	6.8%	1.9%	5.9%	8.1%
	Milk, cow's, fluid, whole	2.5%	9.3%	3.3%	9.2%	11.3%
	White potato, chips (incl flavored)	2.5%	11.8%	3.2%	12.4%	14.3%
	Milk, cow's, fluid, 2% fat	2.2%	14.0%	1.5%	13.9%	15.9%
	Pizza w/ meat, thin crust	2.0%	16.1%	1.2%	15.1%	18.3%
	Ice cream, regular, not chocolate	1.9%	18.0%	1.7%	16.8%	19.4%
	Pizza w/ meat, thick crust	1.9%	19.8%	1.4%	18.2%	20.6%
	Salty snacks, corn or cornmeal, tortilla chips	1.8%	21.6%	1.5%	19.8%	22.3%
	Pizza, cheese, thin crust	1.7%	23.3%	<1%	19.8%	23.6%
	Chicken patty/fillet/tenders, breaded, cooked	1.3%	24.6%	3.3%	23.1%	25.8%
	Salty snacks, corn or cornmeal, corn puffs, twists	1.3%	25.9%	1.4%	24.5%	27.8%
	Cheese, processed, american/cheddar type	1.3%	27.2%	1.5%	26.0%	29.5%
	Mayonnaise, regular	1.2%	28.4%	1.4%	27.5%	31.3%
	Chicken nuggets	1.2%	29.6%	<1%	27.5%	33.0%
	Cheese, natural, cheddar or american type	1.1%	30.7%	<1%	27.5%	33.0%
	Macaroni/noodles w/ cheese, made from dry mix	1.1%	31.8%	<1%	27.5%	33.0%
	Chicken or turkey pot pie	<1%	31.8%	2.2%	29.7%	<1%
	Turnover, meat- & cheese-filled, no gravy	<1%	31.8%	1.9%	31.6%	<1%
	Peanut butter	<1%	31.8%	1.8%	33.4%	<1%
	Cake, carrot, ns as to icing	<1%	31.8%	1.3%	34.8%	<1%
	Biscuit w/ gravy	<1%	31.8%	1.3%	36.0%	<1%
	Egg omelet/scrambled egg, w/ hot dogs	<1%	31.8%	1.2%	37.3%	<1%
	Ground beef, regular, cooked	<1%	31.8%	1.2%	38.4%	<1%
	Sunflower seeds, hulled, roasted, salted	<1%	31.8%	1.1%	39.6%	<1%
	Pork sausage, fresh, bulk, patty or link, cooked	<1%	31.8%	1.0%	40.6%	<1%
	Cheese, nfs	<1%	31.8%	<1%	40.6%	1.6%
	Ground beef or patty	<1%	31.8%	<1%	40.6%	1.0%
	Pork, spareribs, cooked, lean & fat	<1%	31.8%	<1%	40.6%	1.1%
	Quiche w/ meat, poultry or fish	<1%	31.8%	<1%	40.6%	1.4%
	Tartar sauce	<1%	31.8%	<1%	40.6%	1.1%

**Table 2: Leading Sources of Discretionary Fat by Weight Status (continued)**

Gender	Leading Sources of Total Fat	Weight Categories					
		Normal Weight		At-risk		Overweight	
		%	Cum %	%	Cum %	%	Cum %
Male	White potato, french fries, from frozen, deep-fried	3.5%	3.5%	3.9%	3.9%	3.3%	3.3%
	Milk, cow's, fluid, whole	3.1%	6.6%	2.6%	6.4%	2.7%	6.0%
	Pizza w/ meat, thick crust	2.6%	9.2%	2.7%	9.1%	3.4%	9.4%
	Milk, cow's, fluid, 2% fat	2.5%	11.6%	2.3%	11.4%	2.8%	12.1%
	Salty snacks, corn or cornmeal, tortilla chips	2.2%	13.9%	3.6%	15.1%	2.6%	14.7%
	Pizza w/ meat, thin crust	2.1%	15.9%	1.2%	16.3%	2.3%	17.0%
	White potato, chips (includingude flavored)	1.9%	17.8%	2.7%	19.0%	2.0%	19.0%
	Ground beef, regular, cooked	1.7%	19.5%	2.8%	21.8%	2.0%	21.0%
	Ice cream, regular, not chocolate	1.5%	21.0%	1.1%	23.0%	<1%	21.0%
	Mayonnaise, regular	1.4%	22.4%	1.3%	24.3%	1.2%	22.2%
	Ground beef or patty	1.1%	23.4%	1.0%	25.3%	1.1%	23.4%
	Cheese, processed, American/cheddar type	1.0%	24.5%	1.4%	26.7%	2.0%	25.4%
	Creamy dressing, w/sour cream/buttermilk & oil	<1%	24.5%	1.8%	28.5%	1.1%	26.5%
	Chicken patty/fillet/tenders, breaded, cooked	<1%	24.5%	1.6%	30.1%	<1%	26.5%
	Cookie, chocolate chip	<1%	24.5%	1.5%	31.6%	<1%	26.5%
	Cheeseburger, 1/4 lb meat, w/ tomato/catsup, bun	<1%	24.5%	1.3%	32.8%	<1%	26.5%
	Burrito w/ beef & beans (includingude burrito, NFS)	<1%	24.5%	1.3%	34.1%	<1%	26.5%
	Frankfurter or hot dog, beef	<1%	24.5%	1.1%	35.2%	<1%	26.5%
	French dresssing	<1%	24.5%	1.1%	36.3%	<1%	26.5%
	Eggs, whole, fried (including scrambled, no milk added)	<1%	24.5%	1.1%	37.4%	1.1%	27.6%
	Pizza w/ meat & vegetables, thick crust	<1%	24.5%	<1%	37.4%	1.6%	29.1%
	Cookie, choc chip, homemade or purchased at bakery	<1%	24.5%	<1%	37.4%	1.3%	30.4%
	Bread stick, soft, prepared w/ garlic & parmesan cheese	<1%	24.5%	<1%	37.4%	1.1%	31.5%

**Table 3: Leading Sources of Total Fat by Weight Status**

Gender	Leading Sources of Total Fat	Weight Categories					
		Normal Weight		At-risk		Overweight	
Female	White potato, french fries, from frozen, deep-fried	3.0%	3.0%	3.3%	3.3%	4.3%	4.3%
	Creamy dressing, w/sour cream/buttermilk & oil	2.5%	5.5%	1.5%	4.8%	2.2%	6.6%
	Milk, cow's, fluid, whole	2.2%	7.7%	2.9%	7.7%	2.7%	9.2%
	White potato, chips (including flavored)	2.0%	9.7%	2.6%	10.3%	2.5%	11.7%
	Milk, cow's, fluid, 2% fat	2.0%	11.7%	1.3%	11.6%	1.4%	13.1%
	Pizza w/ meat, thin crust	1.8%	13.6%	1.1%	12.8%	2.2%	15.2%
	Salty snacks, corn or cornmeal, tortilla chips	1.8%	15.3%	1.5%	14.3%	1.7%	16.9%
	Pizza w/ meat, thick crust	1.7%	17.0%	1.3%	15.6%	1.1%	18.0%
	Ice cream, regular, not chocolate	1.6%	18.6%	1.4%	17.0%	<1%	18.0%
	Pizza, cheese, thin crust	1.4%	20.0%	<1%	17.0%	<1%	18.0%
	Chicken patty/fillet/tenders, breaded, cooked	1.3%	21.3%	3.2%	20.1%	2.1%	20.1%
	Salty snacks, corn or cornmeal, corn puffs, twists	1.2%	22.5%	1.3%	21.4%	1.8%	21.9%
	Chicken nuggets	1.1%	23.6%	<1%	21.4%	1.6%	23.4%
	Cheese, processed, american/cheddar type	1.1%	24.6%	1.3%	22.7%	1.4%	24.8%
	Chicken or turkey pot pie	<1%	24.6%	2.1%	24.8%	<1%	24.8%
	Peanut butter	<1%	24.6%	1.8%	26.6%	<1%	24.8%
	Ground beef, regular, cooked	<1%	24.6%	1.7%	28.3%	1.1%	25.9%
	Turnover, meat- & cheese-filled, no gravy	<1%	24.6%	1.7%	29.9%	<1%	25.9%
	Egg omelet/scrambled egg, w/ hot dogs	<1%	24.6%	1.5%	31.5%	<1%	25.9%
	Biscuit w/ gravy	<1%	24.6%	1.2%	32.7%	<1%	25.9%
	Mayonnaise, regular	<1%	24.6%	1.2%	33.8%	1.5%	27.4%
	Cake, carrot, ns as to icing	<1%	24.6%	1.1%	35.0%	<1%	27.4%
	Sunflower seeds, hulled, roasted, salted	<1%	24.6%	1.1%	36.1%	<1%	27.4%
	Pork sausage, fresh, bulk, patty or link, cooked	<1%	24.6%	1.1%	37.1%	<1%	27.4%
	Ground beef or patty	<1%	24.6%	<1%	37.1%	1.5%	28.9%
	Cheese, NFS	<1%	24.6%	<1%	37.1%	1.3%	30.2%
	Quiche w/ meat, poultry or fish	<1%	24.6%	<1%	37.1%	1.2%	31.4%
	Pork, spareribs, cooked, lean & fat	<1%	24.6%	<1%	37.1%	1.2%	32.6%
	Pizza, cheese, thick crust (including english muffin)	<1%	24.6%	<1%	37.1%	1.1%	33.7%

**Table 3: Leading Sources of Total Fat by Weight Status (continued)**

Gender	Leading Sources of Saturated Fat	Weight Categories					
		Normal Weight		At-risk		Overweight	
		%	Cum %	%	Cum %	%	Cum %
Males	Milk, cow's, fluid, whole	5.16%	5.16%	4.45%	4.45%	4.74%	4.74%
	Milk, cow's, fluid, 2% fat	4.38%	9.54%	4.13%	8.57%	5.08%	9.62%
	Pizza w/ meat, thick crust	2.77%	12.31%	2.87%	11.44%	3.71%	13.53%
	Ice cream, regular, not chocolate	2.53%	14.84%	2.00%	13.43%	1.43%	14.96%
	White potato, french fries, from frozen, deep-fried	2.52%	17.37%	2.72%	16.15%	2.50%	17.46%
	Pizza w/ meat, thin crust	2.37%	19.74%	1.12%	17.28%	2.64%	20.10%
	Ground beef, regular, cooked	1.83%	21.57%	3.13%	20.41%	2.22%	22.33%
	Cheese, processed, american/cheddar type	1.76%	23.33%	2.38%	22.78%	3.57%	25.90%
	White potato, chips (incl flavored)	1.69%	25.02%	2.45%	25.23%	1.86%	27.75%
	Cheese, nfs	1.58%	26.61%	<1%	25.23%	<1%	27.75%
	Cheese, natural, cheddar or american type	1.53%	28.14%	1.65%	26.88%	1.62%	29.37%
	Milk, chocolate, nfs	1.26%	29.40%	1.58%	28.46%	<1%	29.37%
	Cheese,cheddar/american type,ns natural or processed	1.19%	30.60%	1.45%	29.90%	<1%	29.37%
	Salty snacks, corn or cornmeal, tortilla chips	1.19%	31.79%	1.97%	31.87%	1.44%	30.82%
	Ground beef or patty	1.18%	32.97%	1.11%	32.99%	1.26%	32.08%
	Cheeseburger, 1/4 lb meat, w/ tomato/catsup, bun	<1%	32.97%	1.55%	34.54%	<1%	32.08%
	Pizza, cheese, thin crust	<1%	32.97%	1.45%	35.98%	<1%	32.08%
	Cookie, chocolate chip	<1%	32.97%	1.37%	37.35%	1.08%	33.16%
	Frankfurter or hot dog, beef	<1%	32.97%	1.27%	38.62%	<1%	33.16%
	Chicken patty/fillet/tenders, breaded, cooked	<1%	32.97%	1.21%	39.83%	<1%	33.16%
	Burrito w/ beef & beans (include burrito,nfs)	<1%	32.97%	1.19%	41.02%	<1%	33.16%
	Cheese, muenster	<1%	32.97%	1.05%	42.08%	<1%	33.16%
	Beef steak, broiled or baked, lean only	<1%	32.97%	1.03%	43.10%	<1%	33.16%
	Pizza w/ meat & vegetables, thick crust	<1%	32.97%	<1%	43.10%	1.66%	34.82%

**Table 4: Leading Sources of Saturated Fat by Weight Status**



Gender	Leading Sources of Saturated Fat	Weight Categories					
		Normal Weight		At-risk		Overweight	
		%	Cum %	%	Cum %	%	Cum %
Females	Milk, cow's, fluid, whole	3.66%	3.66%	5.08%	5.08%	4.63%	4.63%
	Milk, cow's, fluid, 2% fat	3.61%	7.28%	2.46%	7.54%	2.57%	7.21%
	Ice cream, regular, not chocolate	2.78%	10.06%	2.54%	10.08%	1.53%	8.73%
	White potato, french fries, from frozen, deep-fried	2.19%	12.24%	2.41%	12.48%	3.14%	11.88%
	Pizza w/ meat, thin crust	2.13%	14.37%	1.32%	13.81%	2.61%	14.48%
	Cheese, processed, american/cheddar type	1.86%	16.24%	2.25%	16.06%	2.43%	16.91%
	White potato, chips (incl flavored)	1.84%	18.08%	2.45%	18.50%	2.28%	19.19%
	Pizza w/ meat, thick crust	1.81%	19.88%	1.39%	19.90%	1.22%	20.41%
	Pizza, cheese, thin crust	1.77%	21.65%	<1%	19.90%	<1%	20.41%
	Cheese, natural, cheddar or american type	1.74%	23.39%	1.45%	21.35%	<1%	20.41%
	Cheese, nfs	1.46%	24.85%	1.36%	22.71%	2.39%	22.81%
	Cheese,cheddar/american type,ns natural or processed	1.10%	25.95%	1.36%	24.06%	1.36%	24.17%
	Milk, chocolate, nfs	1.07%	27.02%	<1%	24.06%	<1%	24.17%
	Creamy dressing, w/sour cream/buttermilk & oil	1.06%	28.08%	<1%	24.06%	<1%	24.17%
	Cheese, cream	1.00%	29.08%	<1%	24.06%	<1%	24.17%
	Chicken patty/fillet/tenders, breaded, cooked	<1%	29.08%	2.20%	26.26%	1.46%	25.63%
	Ground beef, regular, cooked	<1%	29.08%	1.94%	28.21%	1.72%	27.35%
	Chicken or turkey pot pie	<1%	29.08%	1.93%	30.14%	<1%	27.35%
	Turnover, meat- & cheese-filled, no gravy	<1%	29.08%	1.38%	31.51%	<1%	27.35%
	Egg omelet/scrambled egg, w/ hot dogs	<1%	29.08%	1.37%	32.88%	<1%	27.35%
	Pork sausage, fresh, bulk, patty or link, cooked	<1%	29.08%	1.07%	33.95%	1.25%	28.60%
	Peanut butter	<1%	29.08%	1.04%	34.99%	<1%	28.60%
	Butter, nfs	<1%	29.08%	1.02%	36.01%	<1%	28.60%
	Quiche w/ meat, poultry or fish	<1%	29.08%	<1%	36.01%	1.60%	30.20%
	Ground beef, regular, cooked	<1%	29.08%	<1%	36.01%	1.30%	31.51%
	Pizza, cheese, thick crust (incl english muffin)	<1%	29.08%	<1%	36.01%	1.22%	32.73%
	Chicken nuggets	<1%	29.08%	<1%	36.01%	1.16%	33.89%
	Butter, whipped, tub, salted	<1%	29.08%	<1%	36.01%	1.02%	34.91%
	Salty snacks, corn or cornmeal, corn puffs, twists	<1%	29.08%	<1%	36.01%	1.02%	34.91%

**Table 4: Leading Sources of Saturated Fat by Weight Status (continued)**